CLAIMS

We claim:

1. (currently amended) A method for treating a patient for a bone related condition comprising the steps of:

measuring a bone characteristic level in a bone of said patient to yield a first score having a value;

based upon the value of said first score, conducting a gait analysis on said patient to yield a first gait characterization;

based upon the value of the first score and the first gait characterization, measuring a bone marker concentration in at least one body fluid of said patient to yield a first bone marker level having a value; and

prescribing a therapy based on at least one of said first score, said first gait characterization and said bone marker level value.

2. (original) The method of claim 1 wherein the bone characteristic level is measured using a bone characteristic measuring unit, comprising: a space for housing a portion of said patient; a positioning device for holding said portion; a plurality of ultrasound transducers for transmitting and detecting signals; and an output for outputting said first score value.

3. (original) The method of claim 2 wherein the bone characteristic is a quantitative ultrasound index.

4. (original) The method of claim 2 wherein the bone characteristic is a stiffness index.

5. (original) The method of claim 1 wherein the bone characteristic level is measured using X-ray absorptiometry.

6. (original) The method of claim 1 wherein the bone characteristic level is measured using quantitative ultrasonometry.

7. (original) The method of claim 1 wherein the bone characteristic level is measured using quantitative computed tomography.

8. (original) The method of claim 1 wherein the bone characteristic is bone mineral density.

9. (original) The method of claim 1 further comprising the step of assessing a plurality of risk factors attributable to the patient.

10. (original) The method of claim 9 wherein said therapy is prescribed based at least in part upon the assessment of said risk factors.

11. (original) The method of claim 1, wherein the first score is a T-score.

12. (original) The method of claim 1 wherein said therapy is prescribed based upon an output of an integrated unit having received the first value, the gait characterization, and the bone marker level value.

13. (original) The method of claim 12, wherein said integrated unit comprises a receiver in data communication with a processing unit and a display unit in data communication with the processing unit.

14. (original) The method of claim 1 further comprising the step of determining a likelihood of said patient injuring one of a plurality of bones of said patient.

15. (original) The method of claim 1 wherein the bone marker level is measured by a bone marker measurement device, wherein said device comprises: a container containing a body fluid; a mechanism for holding the said container; an analyzer for determining a concentration of an absorbing constituent in a solution; and an output for outputting the first bone marker level value.

16. (original) The method of claim 1 wherein the gait analysis is characterized by a gait analysis procedure conducted on said patient having a balance, wherein said procedure comprises the steps of: examining the balance of the patient wherein the patient is standing on both feet; examining the balance of the patient wherein the patient is standing on a first foot; and examining the balance of the patient wherein the patient is standing on a second foot.

17. (original) The method of claim 1 wherein the gait analysis is characterized by a gait analysis procedure conducted on said patient having a balance, wherein said procedure comprises the steps of: having the patient stand on a plurality of platforms; detecting pressure exerted on said plurality of platforms; and determining a pressure differential on said plurality of platforms.

18. (original) The method of claim 1 wherein said therapy includes at least one of recommending life style changes, recommending weight bearing exercises, and recommending resistance exercises.

19. (original) The method of claim 1 wherein said therapy includes at least one of recommending increasing calcium intake and recommending increasing vitamin D intake.

20. (original) The method of claim 1 wherein said therapy includes recommending at least one of bisphosphonates, calcitonin, estrogen replacement therapy, and raloxifene.

21. (original) The method of claim 1 further comprising the steps of: within a first pre-defined time period, re-measuring a bone characteristic level in said bone to yield a second score having a value; within a second pre-defined time period, re-conducting a gait analysis to yield a second gait characterization; and within a third pre-defined time period, re-measuring a bone marker concentration in the at least one body fluid of said patient to yield a second bone marker level having a value; comparing the first score to the second score, the first gait characterization to the second gait characterization, and the first bone marker level to the second bone marker level,

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and; prescribing a therapy based upon at least one of said comparisons.

22. (original) The method of claim 21 wherein said first, second and third pre-defined time periods are different periods of time.

23. (original) The method of claim 1 wherein a plurality of bone characteristic levels are measured from a plurality of bones of said patient.

24. (original) The method of claim 1 wherein the step of prescribing a therapy is based on said measurement of a bone characteristic level, said gait analysis, and said measurement of a bone mass marker concentration.

25. (original) The method of claim 1 further including the step of designating a future time to repeat said measurement of a bone characteristic level, said gait analysis, and said measurement of a bone mass marker concentration.

26. (original) The method of claim 25 wherein said future time to repeat said measurement of a bone characteristic level is during the twelfth month from the previous measurement.

27. (original) The method of claim 25 wherein the step of designating a future time to repeat said gait analysis includes scheduling a series of eight gait analyses over a period of time.

28. (original) The method of claim 25 wherein said future time to repeat said gait analysis is between one and four months from the previous analysis.

29. (original) The method of claim 25 wherein said future time to repeat said gait analysis is once a week for eight consecutive weeks.

30. (original) The method of claim 25 wherein said future time to repeat said gait analysis is once every two weeks for sixteen consecutive weeks.

31. (original) The method of claim 25 wherein said future time to repeat said bone marker measurement is between two to four months.

32. (original) The method of claim 25 wherein said future time to repeat said bone marker measurement is during the third month from the previous measurement.

33. (original) The method of claim 1 wherein said steps of measuring a bone characteristic level, conducting a gait analysis and measuring a bone marker concentration may be performed in any order.

34. (original) The method of claim 1 wherein said step of conducting a gait analysis is based on the value of said first score.

35. (canceled)

36. (canceled)

37. (canceled)

38. (canceled)

39. (canceled)

40. (canceled)

41. (canceled)

42. (canceled)

43. (canceled)

44. (original) A method for treating a patient for a bone related condition comprising the steps of:
    measuring a bone characteristic level in a bone of said patient to yield a T-score having a value;
    if the T-score is abnormal, conducting a gait analysis to yield a gait characterization;
    if the gait characterization is abnormal, measuring a bone marker concentration in at least one body fluid of said patient to yield a bone marker level having a value;
    prescribing a therapy based on at least one of the said gait characterization, said T-score, and bone marker level; and
    designating a future time to repeat said measurement of a bone characteristic level, said gait analysis, and said measurement of a bone marker concentration.

45. (original) The method of claim 44 wherein said future time to repeat said measurement of a bone characteristic level is during the twelfth month from the previous measurement.

46. (original) The method of claim 44 wherein the step of designating a future time to repeat said gait analysis includes scheduling a series of eight gait analyses over a period of time.

47. (original) The method of claim 44 wherein said future time to repeat said bone marker measurement is during the third month from the previous measurement.